

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: **Arnold G. Slezak**

Assignee: **SEAGATE TECHNOLOGY LLC**

Application No.: **09/981,556**

Group Art: **3729**

Filed: **October 17, 2001**

Examiner: **Anthony D. Tugbang**

For: **METHOD TO REDUCE SERVO PATTERN RUNOUT ON A PREWRITTEN DISC**

**Mail Stop Appeal Brief-Patents**

**Commissioner for Patents**

**P.O. Box 1450**

**Alexandria, VA 22313-1450**

**ATTENTION: Board of Patent Appeals and Interferences**

**APPELLANT'S BRIEF**

This Brief is in furtherance of the Notice of Appeal and Pre-Appeal Brief Request for Review filed February 15, 2011.

This Brief contains these items under the following headings, and in the order set forth below:

- I. REAL PARTY IN INTEREST
- II. RELATED APPEALS AND INTERFERENCES
- III. STATUS OF CLAIMS
- IV. STATUS OF AMENDMENTS
- V. SUMMARY OF CLAIMED SUBJECT MATTER
- VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL
- VII. ARGUMENT
- VIII. CLAIMS APPENDIX
- IX. EVIDENCE APPENDIX
- X. RELATED PROCEEDINGS APPENDIX

**I. REAL PARTY IN INTEREST**

The real party in interest in this application is Seagate Technology LLC.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no other related appeals and there are no related interferences.

## **III. STATUS OF CLAIMS**

The status of the claims in this proceeding is:

<u>CLAIM</u>	<u>STATUS</u>
1. (Previously presented)	Independent.
2. (Canceled)	
3. (Previously presented)	Depends from claim 1.
4. (Canceled)	
5. (Previously presented)	Depends from claim 1.
6. (Previously presented)	Depends from claim 1.
7. (Previously presented)	Depends from claim 1.
8. (Previously presented)	Depends from claim 7.
9. (Previously presented)	Depends from claim 7.
10. (Canceled)	
11. (Canceled)	
12. (Canceled)	
13. (Canceled)	
14. (Canceled)	
15. (Canceled)	
16. (Canceled)	
17. (Canceled)	
18. (Canceled)	
19. (Canceled)	
20. (Canceled)	
21. (Previously presented)	Depends from claim 9.
22. (Previously presented)	Depends from claim 21.
23. (Previously presented)	Depends from claim 22.
24. (Previously presented)	Depends from claim 23.
25. (Withdrawn)	Independent
26. (Withdrawn)	Depends from claim 25.
27. (Withdrawn)	Depends from claim 26.
28. (Withdrawn)	Depends from claim 27.
29. (Withdrawn)	Depends from claim 28.
30. (Canceled)	
31. (Canceled)	
32. (Canceled)	
33. (Canceled)	

### **A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

Claims in the application: 1-33

## **B. STATUS OF ALL THE CLAIMS**

1. Claims canceled: 2, 4, 10-20 and 30-33
2. Claims withdrawn from consideration but not canceled: 25-29
3. Claims pending: 1, 3, 5-9 and 21-24
4. Claims allowed: none
5. Claims rejected: 1, 3, 5-9 and 21-24
6. Claims objected to: none

## **C. CLAIMS ON APPEAL**

Claims now on appeal: 1, 3, 5-9 and 21-24

## **IV. STATUS OF AMENDMENTS**

Appellant filed an After-final Response on January 18, 2011 which made claim amendments. The Office entered and considered Appellant's After-final Response and subsequently issued an Advisory Action. Appellant subsequently filed a Pre-Brief Request on February 15, 2011. The Panel's Decision to proceed to appeal without comment is dated March 29, 2011.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Embodiments of the present invention according to the language of claim 1 contemplate a method for placing a plurality of prewritten discs around a motor hub (see specification page 6:8-9). Each prewritten disc has servo tracks characterized by a concentricity offset in a direction of an alignment axis that is in the same angular direction for all of the plurality of prewritten discs in relation to a center of the respective prewritten disc (see specification page 5:29-30; Fig. 2). The prewritten discs are placed around the motor hub with respect to each other so that the alignment axes among the plurality of prewritten discs are angularly disposed symmetrically around the motor hub(see specification page 7:22-30). After the placing step, each of the plurality of prewritten discs is biased in a direction of the respective alignment axis to

concentrically align the servo tracks of a first disc of the plurality of prewritten discs with the servo tracks of a second disc of the plurality of prewritten discs (see specification page 8:13-20).

Embodiments of the present invention according to the language of the claims depending from claim 1 contemplate that the biasing step comprises pressingly engaging against an edge of each of the prewritten discs (see specification page 6:26-27). The method wherein the placing step is characterized by at least two of the symmetrically placed alignment axes being non-collinear (see specification page 7:24-30). The method wherein the placing step is characterized by at least two of the symmetrically placed alignment axes being collinear (see specification page 7:22-24). The method wherein the placing step is characterized by detecting an indicia on each of the prewritten discs associated with the respective alignment axis (see specification page 5:16-19; 6:20-21). The method wherein the placing step is characterized by the indicia comprising a laser index mark (see specification page 5:11-15). The method wherein the placing step is characterized by a first indicia on one side of each prewritten disc associated with the respective alignment axis and a second indicia different than the first indicia on the other side of each prewritten disc associated with the respective alignment axis (see specification page 5:11-24).

The method wherein the placing step is characterized by the first indicia comprising a first line that is collinear with the alignment axis and a second line angularly disposed from the first line (see specification page 5:11-13; 5:19; Fig. 2). The method wherein the placing step is characterized by the first indicia comprising a third line angularly disposed from the first line (see specification page 5:11-13; 5:19; Fig. 2). The method wherein the placing step is characterized by the second and third lines being nonsymmetrically disposed from the first line (see specification page 5:20). The method wherein the placing step is characterized by the first and second indicia being mirror images of each other (see specification page 5:21-23).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1, 3, 5-9 and 21-24 stand rejected as allegedly failing to comply with Section 112(1), the written description requirement.

Claims 1, 3, 5-9 and 21-24 stand rejected as allegedly being indefinite under Section 112(2).

Claims 1, 3, 5-7 and 9 stand rejected under 35 USC §102 as allegedly being unpatentable over Koruba et al. (US 6,081,990).

Claim 8 stands rejected under 35 USC §103 as allegedly being unpatentable over Koruba et al. (US 6,081,990) in view of Japanese Patent (JP 5-205442).

## **VII. ARGUMENT**

### **THE OFFICE'S SECTION 112(1) WRITTEN DESCRIPTION RATIONALE FOR THE REJECTION OF CLAIM 1 IS REVERSIBLE ERROR**

1. The Office's position that the written description requirement establishes an *in haec verba* requirement for the featured *angularly disposed* and *symmetrically* terms is reversible error.

The Office's stated its position is that the written description is inadequate simply because the specification as originally filed does not contain the claim terms *angularly disposed* and *symmetrically*:

The specification, as originally filed, does not even use the terms of “angularly disposed” or “symmetrically.”<sup>1</sup>

The written description requirement is met when evidence shows that Appellant had possession of the claimed subject matter at the time of filing, but there is no *in haec verba* requirement to show that requisite possession.<sup>2</sup> The Office has not responded substantively to Appellant's showing in this regard, rather most recently merely pointing back to its Advisory

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<sup>1</sup> Final Office Action mailed 11/15/2010.

<sup>2</sup> Applicant's Pre-Brief Request pg. 3; Applicant's Response filed 1/18/2011 ppg. 10-11; citing *Union Oil Co. of California v. Atlantic Richfield Co.*, 208 F.3d 989 (Fed. Cir. 2000), MPEP 2163.

Action of 5/10/2010 which states the *in haec verba* requirement.<sup>3</sup> Appellant identified the Office's failure to respond to the substance of this issue left an unresolved factual issue that should have been resolved before requiring Appellant to go to appeal on the merits of this case.<sup>4</sup>

Appellant has shown, without rebuttal by the Office, that the Office's position is reversible error to the extent that it is based on the written description requirement being an *in haec verba* requirement for usage of the terms *angularly disposed* and *symmetrically* in the specification as originally filed.

2. The Office has failed to substantiate a *prima facie* case of inadequate written description for the claimed subject matter.

Compliance with the written description requirement is a fact-based inquiry.<sup>5</sup> A legal presumption exists that the specification is adequate, such that the Office bears the initial burden of establishing a *prima facie* case to substantiate a written description rejection.<sup>6</sup> The *prima facie* case must set forth a reasonable basis to challenge the adequacy, in a showing by a preponderance of the evidence that a skilled artisan would not recognize in the disclosure a description of the invention defined by the claims.<sup>7</sup> Mere conclusory statements or stereotypical expressions are insufficient; rather, every written description rejection must be accompanied by a rationale that is bolstered by a full development of the reasoning relied upon.<sup>8</sup> Appellant is not under any obligation at all to rebut a rejection until the Office establishes the requisite *prima facie* case.<sup>9</sup>

The Office's position is that it would simply be impossible for the skilled artisan to discern possession of the featured *alignment axes among the plurality of prewritten discs* are

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<sup>3</sup> Advisory Action of 5/10/2010 pg. 4, relied on by the Office in its Advisory Action of 2/8/2011.

<sup>4</sup> Applicant's Pre-Brief Request pg. 4; Applicant's Response filed 1/18/2011 pg. 11.

<sup>5</sup> *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 63 USPQ2d 1609, 1613 (Fed. Cir. 2002); *Vas-Cath, Inc. v. Mahurkar*, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991); *In re Wertheim*, 191 USPQ 90, 96 (CCPA 1976); *In re Smith*, 173 USPQ 679, 683 (CCPA 1971); MPEP 2163, 2163.04.

<sup>6</sup> *In re Marzocchi*, 169 USPQ 367, 370 (CCPA 1971); MPEP 2163(III)(A).

<sup>7</sup> *Wertheim*, 191 USPQ at 97; MPEP 2163.04.

<sup>8</sup> MPEP 706.03.

<sup>9</sup> Note 3.

*angularly disposed symmetrically around the motor hub:*

In Claim 1, the recitation of “the prewritten discs placed around the motor hub with respect to each other so that the alignment axes amount [sic: among] the plurality of prewritten discs are angularly disposed symmetrically around the motor hub” (lines 6-9) is new matter. The specification and drawings, as originally filed, provide no written description of any alignment axes of the prewritten discs being angularly disposed symmetrically around the motor hub.<sup>10</sup>

The Office’s claim construction is unreasonable for the reason that it divorces the term *alignment axis* from its plain meaning of the claim language of which it forms a part. That is, in the context of the surrounding language, and properly considering the claim as a whole, the *alignment axis* is plainly featured as being the direction of the servo track concentricity offset: *each prewritten disc having servo tracks characterized by a concentricity offset in a direction of an alignment axis...<sup>11</sup>*

Appellant amended the claims after the case came back down from the Board the first time, and particularly in view of the Board’s definiteness concern with the previous claim language in that appeal. That previous language that the Board found indefinite was “servo tracks that are offset in relation to a common angular reference axis.” Appellant amended the claim to more particularly feature the *alignment axis* being plainly defined by the claim language as the direction of the concentricity offset.

The Office has not rebutted or even responded to the substance of Appellant’s evidence that the amendment obviates the Board’s definiteness concern. In fact, in its most recent response the Office refers back to its rationale in the Final Office Action of 5/10/2010 where it simply equates the currently rejected claim language (*alignment axis*) on appeal to the former language previously on appeal (“angular reference axis”).<sup>12</sup>

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<sup>10</sup> Final Office Action pg. 3.

<sup>11</sup> Applicant’s Pre-Brief Request filed 2/15/2011; Applicant’s Response of 1/18/2011 ppg. 7-8; Applicant’s Response of 8/23/2010 ppg. 7-8; Applicant’s Pre-Brief Request filed 5/24/2010; Applicant’s Response of 11/2/2009 ppg. 4-6.

<sup>12</sup> Advisory Action of 5/10/2010 ppg. 2-3, relied on by the Office in its Advisory Action of 2/8/2011.

The Office's rationale for equating the current and previous claim language is that the current language (*alignment axis*), like the previous claim language ("angular reference axis") according to the Board, can allegedly be construed within reason to include axes other than those that are coplanar with the disc:

The examiner's position is that the Board's analysis still applies in terms of the claims "direction of an alignment axis that is in the same direction for the [sic] all of the plurality of the prewritten discs in relation to a center of the respective prewritten disc", particularly since the alignment axis can be read as one that radiates into or out of, or through, the page (as in applicant(s) Fig. 2).<sup>13</sup>

Appellant has repeatedly shown that the skilled artisan would find the Office's rationale that the featured *alignment axis* could reasonably be directed in some plane other than the disc plane is unreasonable, even nonsensical.<sup>14</sup> The Office has not responded to the substance of Appellant's evidence in this regard, just merely ignored it.

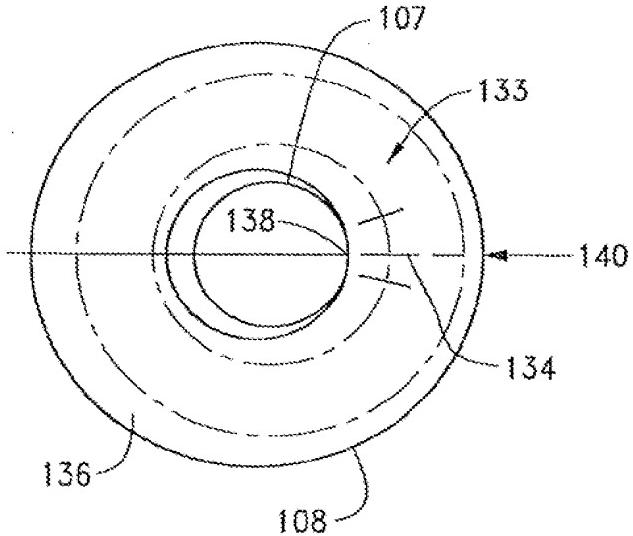
Reiterating, Appellant has shown that its FIG. 2 and the descriptions thereof clearly disclose a prewritten disc 108 having a servo track pattern (depicted by broken circles<sup>15</sup>) that is characterized by a concentricity offset in a direction of alignment mark 134.

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<sup>13</sup> Advisory Action of 5/10/2010 ppg. 3-4, relied on by the Office in its Advisory Action of 2/8/2011.

<sup>14</sup> Applicant's Pre-Brief Request of 2/15/2011 pg. 2; Applicant's Response filed 1/18/2011 pg. 12; Applicant's Response filed 8/23/2010 pg. 9; Applicant's Pre-Brief Request filed 5/24/2010 pg. 3; Applicant's Response filed 11/2/2009 pg. 6.

<sup>15</sup> See specification pg. 6:29-30.



In other words, the servo track pattern is concentric to motor rotation but concentrically offset to the disc 108. The direction of the concentricity offset is along a radial axis that in these depicted embodiments is coextensive with the alignment mark 134.

Again, the rejected claim language plainly defines the *alignment axis* as being the direction of the servo track concentricity offset. The skilled artisan readily discerns that the servo tracks can only possibly reside in the same plane as the disc. It is nonsensical to suggest that the servo tracks could reasonably be viewed as being concentrically offset in a plane that “radiates into or out of, or through, the page (as in applicant(s) Fig. 2)”<sup>16</sup> as suggested by the Office. The Office’s construction of the featured *alignment axis* is unreasonably broad because it ignores the plain meaning of the claim language that clearly limits the direction of the *alignment axis* to only that which can possibly be a direction of the servo track concentricity offset, which the skilled artisan having read the specification readily discerns can only be directions that are coplanar with the disc.

Instead of rebutting Appellant’s evidence in that regard, the Office takes the position, without any substantiation, that the alignment mark 134 in FIG. 2 which is coplanar with the disc, allegedly does not support the featured *alignment axis*:

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<sup>16</sup> Note 13.

The “alignment axis” of the claims does not correlate to any of the alignment marks of the disclosure.<sup>17</sup>

As seen above in FIG. 2, the skilled artisan readily ascertains that in those depicted embodiments the featured *alignment axis* is coextensive with the alignment mark, because both define the direction of the servo track concentricity offset. Appellant has also repeatedly shown<sup>18</sup> that the skilled artisan having read the specification understands that only in some embodiments is it necessary to employ the alignment mark 134 as a physically existent indicia on the disc.<sup>19</sup> Reiterating, the specification explicitly discloses it to be advantageous to produce the concentricity offset in mere relation to a radial axis, the *alignment axis*, without any need to employ physical indicia on the disc visually marking the *alignment axis*:

In yet another preferred embodiment, no alignment mark is placed on the prewritten disc at all. After the servo information has been written to the disc, the position of the disc is precisely monitored relative to the biasing forces used during servo write and placed in a carrier for storage.<sup>20</sup>

The skilled artisan having read the specification understands that the featured *alignment axis* in all embodiments is defined by the radial axis along which the biasing force was applied to the disc during servo write, because the biasing results in the servo track concentricity offset. Thus, the *alignment axis* exists in all embodiments, whether the physical indicia alignment mark 134 is employed or not. The skilled artisan thus readily discerns that the featured *alignment axis* in fact does correlate to the alignment mark 134 for being coextensive in those embodiments employing the physical indicia alignment mark. The Office’s rationale that the *alignment axis* does not correlate to the alignment mark is reversible error.

Further, FIG. 2 above depicts the prewritten disc 108 being biased against the motor hub 107 by a biasing force 140. The prewritten disc has been positionally rotated to radially align the

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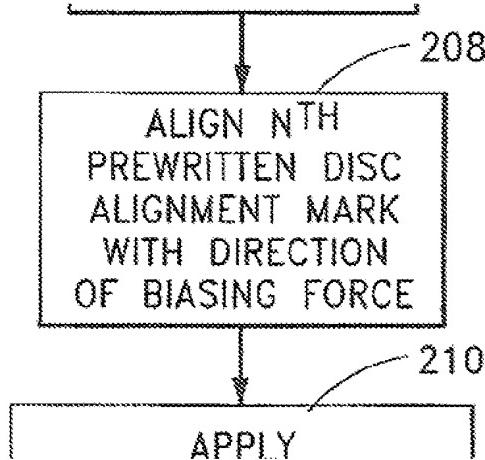
<sup>17</sup> Advisory Action of 5/10/2011 pg. 2, relied on in the Office’s Advisory Action of 2/8/2011 pg. 2.

<sup>18</sup> Applicant’s Pre-Brief Request of 2/15/2011 pg. 2; Applicant’s Response of 1/18/2011 pg. 9; Applicant’s Response of 8/23/2010 pg. 10; Applicant’s Response of 5/24/2010 ppg. 1-2.

<sup>19</sup> See specification pg. 8:4-5.

<sup>20</sup> See specification pg. 8:12-15 (emphasis added).

*alignment axis* (in these embodiments also the alignment mark 134) with the direction of the biasing force 140. This process is described in the alignment step in block 208 of the method depicted in FIG. 3:



The direction of the biasing force (such as biasing force 140) is disclosed as being that which advantageously balances the plurality of discs that form a disc stack:

In an embodiment of a disc stack assembly having multiple prewritten discs 108, it is desirable to balance the disc stack assembly for rotation about the spindle motor hub 107. For disc stack assemblies with even numbers of discs, this may be accomplished by applying the biasing force for a particular disc in an opposite direction from any disc above and below that particular disc. For disc stack assemblies with odd numbers of discs, the biasing force should be applied to each disc at even angular intervals about a circumference of the discs 108. For example, if there are three discs, the biasing force for any particular disc should be applied to the outer diameter of the particular disc 108 one-hundred-twenty degrees apart from the direction of each of the biasing forces applied to the remaining two discs 108.<sup>21</sup>

The skilled artisan having read the specification readily understands that placing the *alignment axes* “symmetrically around the motor hub,” as featured in claim 1, is a meaning that plainly can include placing them oppositely (180 degrees apart) in a stack of even number of discs, and can include placing them at even angular intervals (such as 120 degrees apart for three discs) in a stack of an odd number of discs.

<sup>21</sup> Specification pg. 8:20-30 (emphases added).

By all this evidence Appellant has shown in the record that the skilled artisan finds clear support for the *alignment axes among the plurality of prewritten discs are angularly disposed symmetrically around the motor hub* feature of claim 1, and that support is from information which is found in the originally filed specification.

The Office is obligated to present evidence or reasons why a skilled artisan reading Appellant's original specification would not recognize any support for the featured *alignment axes among the plurality of prewritten discs are angularly disposed symmetrically around the motor hub*. Against the weight of Appellant's evidence the Office asserts that there is no written description support whatsoever for the disputed feature.<sup>22</sup> For the reasons above, all of the Office's rationales for reaching that conclusion are reversible error. That is, Appellant has shown that the Office's rationale that the *alignment axes* are not limited to being coplanar with the disc is reversible error. Also, Appellant has shown that the Office's rationale that the *alignment axis* is not correlated to the alignment mark 134 is reversible error.

The legal criteria for satisfying the written description requirement is whether Appellant has disclosed the technologic knowledge upon which the rejected claim is based, and demonstrated a possession of the claimed invention at the time of filing.<sup>23</sup> Appellant has shown how the skilled artisan having read the specification readily discerns and acknowledges Appellant's possession of the disputed claim subject matter. Appellant has also shown that the Office's perceived written description deficiency is actually due to it ignoring the ordinary meaning of the rejected claim, in terms of the broadest reasonable interpretation of *alignment axis*, and ignoring explicit disclosure in the specification in support of that broadest reasonable interpretation.

The salient point is that the Office's obligation is to show why the specification does not disclose written description support. The Office has neither substantiated any evidence nor

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<sup>22</sup> Note 10.

<sup>23</sup> *Ariad Pharmaceuticals v. Eli Lilly and Co.*, 2008-1248 (Fed. Cir. 2010) *en banc*.

provided any reasoning or support for the rejection. The rejection has no basis at all in evidence or underlying reasoning as to why the skilled artisan would not recognize in the disclosure a description of the invention defined by the disputed language. The Office's rejection is merely a stereotypical and conclusory statement, not substantiated reasoning. That complete lack of any evidentiary showing in response to Appellant's showing fails to establish the requisite *prima facie* case so as to shift the burden to Appellant. Appellant pointed out that the Office's failure to make out the requisite *prima facie* case was an unresolved factual issue in the prosecution history of this case, not a bona fide matter for appeal, that should have been addressed before requiring Appellant go to appeal on this case.<sup>24</sup>

#### THE OFFICE'S SECTION 112(2) INDEFINITENESS RATIONALE FOR THE REJECTION OF CLAIM 1 IS REVERSIBLE ERROR

The Office's rationale for the rejection of the claims is that the term *alignment axis* is allegedly indefinite:

A person of ordinary skill in the art would not understand what alignment axis is being referred to. For example, angular directions for the discs can occur into and out of the page (of Figure 2). Therefore, it would be impossible to determine an alignment axis that would be the very same angular direction for all of the discs in a plane into and out of the page (of Figure 2). Accordingly, the claims terms are not sufficiently described in the specification and the meaning of the claims is undeterminable, subject to plural interpretations, and therefore indefinite.<sup>25</sup>

For the same reasons set forth above in rebuttal of the written description rejection, the Office's rationale attempts to interpret *alignment axis* by parsing it from the context of the claim language of which the disputed term only forms a part. Particularly, Appellant has shown that the disputed term's meaning cannot be ascertained by divorcing it from the plain meaning that the servo tracks are featured as being concentrically offset in the direction of the *alignment axis*.

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<sup>24</sup> Applicant's Pre-Brief Request of 2/15/2011 pg. 4; Applicant's Response of 1/18/2011 pg. 11; Applicant's Pre-Brief Request of 5/24/2010 pg. 3.

<sup>25</sup> Office Action pg. 4.

Appellant has also shown that the skilled artisan having read the specification readily understands that support for the featured *alignment axis* is found at least in the alignment mark 134. Appellant's decision not to support the claim language with explicit usage of the claim term in the specification does not in-and-of-itself render a claim indefinite. Rather, if the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite.<sup>26</sup>

The Office's only evidence that it would be impossible for the skilled artisan to render an understanding of *alignment axis* is that it could allegedly include an indeterminable number of axes into and out of the sheet of paper on which FIG. 2 is depicted. As discussed above, Appellant has repeatedly traversed that rationale as being reversible error. Again, properly construing the disputed term in the context of the claim language as a whole, the *alignment axis* is the direction in which the servo tracks are concentrically offset. Appellant has shown that the skilled artisan readily knows that it would unreasonable (even nonsensical) to argue that the servo tracks could be concentrically offset in any plane other than the plane of the disc 108. Contrary to the Office's rationale, the skilled artisan knows that the servo tracks cannot be concentrically offset in any direction into or out of the sheet of paper on which FIG. 2 is depicted.

Section 112(2) definiteness is satisfied if the claim meets the threshold requirements of clarity and precision, meaning it recites the claim subject matter with a reasonable degree of particularity and distinctness.<sup>27</sup> Appellant has shown evidence that the skilled artisan would readily ascertain the scope of the disputed term *alignment axis* from the plain meaning of the claim language as being the direction of the servo track concentricity offset. As such, the rejected claim apprises the skilled artisan of its scope and, therefore, serves the notice function required by Section 112(2) by providing clear warning to others as to what constitutes

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<sup>26</sup> *Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992); MPEP 2173.05(e).

<sup>27</sup> MPEP 2173.02.

infringement of the patent.<sup>28</sup> Against Appellant's evidence the Office offers only a rationale relying on its unreasonable claim construction that the *alignment axis* can allegedly be directed other than coplanar to the disc, which as discussed above in detail is reversible error.

## THE OFFICE'S SECTION 102 REJECTION OVER KUROBA IS REVERSIBLE ERROR FOR FAILING TO SUB STANTIMATE *PRIMA FACIE* ANTICIPATION

### 1. Patentability of Claim 1.

Claim 1 features in pertinent part placing a plurality of prewritten (already written) discs that each have the servo track concentricity offset in the same direction:

*placing a plurality of prewritten discs, each prewritten disc having servo tracks characterized by a concentricity offset in a direction of an alignment axis that is in the same angular direction for all of the plurality of prewritten discs in relation to a center of the respective prewritten disc, around a motor hub....*

Referring to Appellant's FIG. 2 above (pg. 9), the skilled artisan readily ascertains that in these illustrative embodiments the disc 108 has prewritten (already written) servo tracks (broken circles) before it is placed around the motor hub 107. The prewritten servo tracks define a concentricity offset in the direction of the *alignment axis*, as featured by the claim language above. As discussed above in the Section 112 rejections, in these illustrative embodiments the *alignment axis* is coextensive with the alignment mark 134, although in other embodiments the alignment mark 134 is not employed. The skilled artisan recognizes that FIG. 2 depicts the *alignment axis* having been situated around the motor hub 107, and the biasing force 140 applied in the direction of the *alignment axis* as featured in other language of claim 1: *after the placing step, biasing each of the plurality of prewritten discs in a direction of the respective alignment axis....* Importantly, the *alignment axis* in FIG. 2 is also radially aligned with the point of contact between the disc 108 and the motor hub 107 as the result of the biasing force 140.

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<sup>28</sup> See, e.g., *Solomon v. Kimberly-Clark Corp.*, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000). See also *In re Larsen*, No. 01-1092 (Fed. Cir. May 9, 2001) (unpublished); MPEP 2173.02.

Although not depicted in FIG. 2, the skilled artisan understands that the servo track concentricity offset is determined at the time of writing the servo tracks to the disc 108, by biasing the disc 108 against a servowriter motor hub in a similar manner to the biasing against the data storage device motor hub 107 depicted in FIG. 2. Generally, biasing the disc 108 such as in the direction of biasing force 140 removes all the slack fit between the disc inner diameter and the motor hub outer diameter, so that the servo tracks are concentric to the motor hub rotation. Thus, the skilled artisan realizes that the disc 108 is biased in the direction of the *alignment axis* to write the servo tracks. In that way the servo tracks are concentric to the motor hub rotation but concentrically offset to the disc 108. For purposes of illustration, if FIG. 2 depicted the disc 108 situated around the servowriter motor instead of the data storage device motor, then the *alignment axis* is substantially at zero degrees. Claim 1 features a plurality of the prewritten discs, with each of the prewritten discs having been biased in the direction of a respective *alignment axis*, with all alignment axes having been oriented in the same angular direction. In other words, for example, claim 1 features a plurality of discs with servo track concentricity offsets in the direction of alignment axes in the same angular direction, such as in the direction of zero degrees.

The Office's rationale is that Kuroba allegedly identically discloses the featured *placing a plurality of prewritten discs* step of claim 1:

Kuroba discloses a method comprising: placing a plurality of prewritten discs 20, each prewritten disc having servo tracks characterized by a concentricity offset in a direction of an alignment axis that is the same angular direction for all of the plurality of the prewritten discs in relation to a center of the respective prewritten disc, around a motor hub (spindle 21)....<sup>29</sup>

Appellant has repeatedly shown that the skilled artisan readily recognizes that Kuroba does not identically disclose at least the *placing a plurality of prewritten discs, each prewritten disc having servo tracks characterized by a concentricity offset in a direction of an alignment axis*

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<sup>29</sup> Final Office Action mailed 11/15/2010 pg. 4.

*axis that is in the same angular direction for all of the plurality of prewritten discs* feature of claim 1.<sup>30</sup> Appellant reiterates that claim 1 features prewritten discs having servo tracks concentrically offset in the same angular orientation of a respective *alignment axis*, and those prewritten discs are subsequently placed so that the alignment axes are disposed symmetrically around the motor hub in alignment with the desired biasing directions.

For example, without limitation, in a three-disc stack all of the discs have servo tracks written to them concentrically offset in the same direction, such as in the zero degree direction of the alignment mark depicted in FIG. 2. That advantageously permits writing the servo tracks to all three discs in one setup, and even writing the servo tracks to all three discs simultaneously. After the discs are prewritten, they are then placed around the data storage device motor hub 107 so that the alignment axes are disposed symmetrically. In this example, the alignment axes would be 120 degrees apart. Therefore, claim 1 features a plurality of discs having servo tracks that are written concentrically offset in relation to an *alignment axis* that is in the same direction for all of the discs, meaning each of the plurality of discs are biased against the servowriter motor in the same angular contact position, then each disc has a different contact position against the data storage device motor hub in aligning the prewritten disc with the desired biasing force.

Appellant has shown that Kuroba discloses a distinguishably different solution whereby each of the three discs in this example would necessarily be written individually with respect to its contact position against the motor hub:

If a plurality of disk media 20 are stacked, a balance control can be attained by the following manner. The position at which the inner periphery of the disk medium comes into contact with the outer periphery of the spindle hub is changed alternately one by one at positions symmetrically with respect to the axis E of rotation. Otherwise, the contact position is changed by a certain angle, one after another, for the respective disks. However, in a case of the data surface servo system, the servo track writing (STW) must be performed

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<sup>30</sup> Applicant's Pre-Brief Request ppg. 4-5; Applicant's Response of 1/18/2011 ppg. 14-16.

individually for the groups of disks in which the contact position is changed for the respective groups.<sup>31</sup>

Appellant has also repeatedly pointed out that the skilled artisan readily recognizes that the only reason that the discs in Kuroba must be written in groups according to their respective contact positions against the motor hub is that the servo pattern offsets are written in relation to alignment axes that are in different directions. If they were written in relation to alignment axes in the same direction, as in the claimed embodiments, then there would be no necessity to write them individually as Kuroba mandates (“must be performed individually”).

To substantiate anticipation in terms of Section 102, every element of the claimed invention must be identically shown in a single reference and arranged as in the rejected claim.<sup>32</sup> The Office has not substantiated *prima facie* anticipation by not showing that Kuroba identically discloses at least the *a plurality of prewritten discs, each prewritten disc having servo tracks characterized by a concentricity offset in a direction of an alignment axis that is in the same angular direction for all of the plurality of prewritten discs* feature of claim 1. In fact, the skilled artisan recognizes that the featured *concentricity offset of an alignment axis that is in the same angular direction* language of the independent claims **specifically excludes** what Kuroba discloses.

### Patentability of Claim 3

Claim 3 further features *the biasing step comprises pressingly engaging against an edge of each of the prewritten discs*. Claim 3 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 3.

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<sup>31</sup> Kuroba col. 8:38-41 (emphasis added).

<sup>32</sup> *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

### Patentability of Claim 5

Claim 5 further features the *placing step* being characterized by at least two of the symmetrically placed alignment axes being non-collinear. Claim 5 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 5.

### Patentability of Claim 6

Claim 6 further features the *placing step* being characterized by at least two of the symmetrically placed alignment axes being collinear. Claim 6 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 6.

### Patentability of Claim 7

Claim 7 further features the *placing step* being characterized by detecting an indicia on each of the prewritten discs associated with the respective alignment axis. Claim 7 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 7.

### Patentability of Claim 8

Claim 8 further features the *placing step* being characterized by the indicia comprising a laser index mark. JP 5-205442 does not cure the deficiency of Kuroba in the rejection of the independent claim from which this claim depends. Claim 8 is allowable at least because it

depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 8.

Patentability of Claim 9

Claim 9 further features the *placing step* being characterized by a first indicia on one side of each prewritten disc associated with the respective alignment axis and a second indicia different than the first indicia on the other side of each prewritten disc associated with the respective alignment axis. Claim 9 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 9.

Patentability of Claim 21

Claim 21 further features the *placing step* being characterized by the first indicia comprising a first line that is collinear with the alignment axis and a second line angularly disposed from the first line. Claim 21 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 21.

Patentability of Claim 22

Claim 22 further features the *placing step* being characterized by the first indicia comprising a third line angularly disposed from the first line. Claim 22 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 22.

### Patentability of Claim 23

Claim 23 further features the *placing step* being characterized by the second and third lines being nonsymmetrically disposed from the first line. Claim 23 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 23.

### Patentability of Claim 24

Claim 24 further features the *placing step* being characterized by the first and second indicia being mirror images of each other. Claim 24 is allowable at least because it depends from an allowable independent claim, for reasons stated above, and recites an additional feature. Appellant respectfully requests that the Board withdraw the rejection of claim 24.

### **Conclusion**

Appellant respectfully requests that the Board reverse the final rejection of claims 1, 3, 5-9 and 21-24 for the reasons above.

Respectfully submitted,

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## **VIII. CLAIMS APPENDIX**

1. (Previously presented) A method comprising:

placing a plurality of prewritten discs, each prewritten disc having servo tracks characterized by a concentricity offset in a direction of an alignment axis that is in the same angular direction for all of the plurality of prewritten discs in relation to a center of the respective prewritten disc, around a motor hub, the prewritten discs placed around the motor hub with respect to each other so that the alignment axes among the plurality of prewritten discs are angularly disposed symmetrically around the motor hub; and

after the placing step, biasing each of the plurality of prewritten discs in a direction of the respective alignment axis to concentrically align the servo tracks of a first disc of the plurality of prewritten discs with the servo tracks of a second disc of the plurality of prewritten discs.

2. (Canceled)

3. (Previously presented) The method of claim 1 wherein the biasing step comprises pressingly engaging against an edge of each of the prewritten discs.

4. (Canceled)

5. (Previously presented) The method of claim 1 wherein the placing step is characterized by at least two of the symmetrically placed alignment axes being non-collinear.

6. (Previously presented) The method of claim 1 wherein the placing step is characterized by at least two of the symmetrically placed alignment axes being collinear.

7. (Previously presented) The method of claim 1 wherein the placing step is characterized by detecting an indicia on each of the prewritten discs associated with the respective alignment axis.

8. (Previously presented) The method of claim 7 wherein the placing step is characterized by the indicia comprising a laser index mark.

9. (Previously presented) The method of claim 7 wherein the placing step is characterized by a first indicia on one side of each prewritten disc associated with the respective alignment axis and a second indicia different than the first indicia on the other side of each prewritten disc associated with the respective alignment axis.

10.-20. (Canceled)

21. (Previously presented) The method of claim 9 wherein the placing step is characterized by the first indicia comprising a first line that is collinear with the alignment axis and a second line angularly disposed from the first line.

22. (Previously presented) The method of claim 21 wherein the placing step is characterized by the first indicia comprising a third line angularly disposed from the first line.

23. (Previously presented) The method of claim 22 wherein the placing step is characterized by the second and third lines being nonsymmetrically disposed from the first line.

24. (Previously presented) The method of claim 23 wherein the placing step is characterized by the first and second indicia being mirror images of each other.

25. (Withdrawn-currently amended) A disc stack comprising first and second discs that are each prewritten before stacking them with servo tracks that are offset with respect to a disc center and in relation to an angular reference axis, the discs being placeable with respect to each other around a motor hub and subsequently fixable in rotation with the motor hub, wherein placing the discs to align the angular reference axes and biasing the discs against the motor hub in a direction of the angular reference axes places the first disc concentrically disposed to the second disc and the servo tracks of the first disc concentrically disposed to the servo tracks of the second disc, and wherein placing the discs to misalign the angular reference axes and biasing each disc against the motor hub in a direction of the respective angular reference axis places the first disc nonconcentrically disposed to the second disc and the servo tracks of the first disc concentrically disposed to the servo tracks of the second disc.

26. (Withdrawn) The disc stack of claim 25 wherein at least one of the discs comprises an alignment mark incident with the angular reference axis.

27. (Withdrawn) The disc stack of claim 26 wherein the disc comprises a first alignment mark on one side of the disc incident with the angular reference axis and a second alignment mark on an opposing side of the disc incident with the angular reference axis.

28. (Withdrawn) The disc stack of claim 27 wherein the first and second alignment marks are different.

29. (Withdrawn) The disc stack of claim 28 wherein the first and second alignment marks are mirror images of each other.

30.-33. (Canceled)

## **IX. EVIDENCE APPENDIX**

No additional evidence is included.

## **X. RELATED PROCEEDINGS APPENDIX**

There exists no relevant related proceedings concerning this Appeal before the Board.